

Fact Sheet



For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-07300005-2019 (1 of 2)**
Application Received: **April 13, 2018**
Plant Identification Number: **03-54-073-00005**
Permittee: **Allegheny Energy Supply Company, LLC**
Facility Name: **Pleasants Power Station**
Mailing Address: **800 Cabin Hill Drive, Greensburg, Pa 15601**

Physical Location: Willow Island, Pleasants County, West Virginia
UTM Coordinates: 474.49 km Easting • 4357.40 km Northing • Zone 17
Directions: From Charleston take Interstate 77 North to Exit 179. Travel north on State Route 2 approximately 7 miles to Willow Island. Facility is located on the left in Willow Island, Pleasants County.

Facility Description

The Pleasants Power Station is a fossil fuel fired electric generation facility with two 657 (net) MW units and operates under Standard Industrial Classification (SIC) code 4911. The facility consists of two (2) 6245 mmBtu/hr coal-fired boilers, two (2) 222 mmBtu/hr oil/natural gas-fired auxiliary boilers, two (2) 7.67 mmBtu/hr diesel-fired emergency generators, two (2) 215 hp diesel-fired fire pumps, and various supporting operations such as coal handling, ash handling, lime handling, gypsum production and various storage tanks with insignificant emissions. The facility has the potential to operate seven (7) days per week, twenty-four (24) hours per day and fifty-two (52) weeks per year.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2017 Actual Emissions
Carbon Monoxide (CO)	1308	799
Nitrogen Oxides (NO _x)	13,096	5,921
Particulate Matter (PM _{2.5})	777	222
Particulate Matter (PM ₁₀)	1,909	519
Total Particulate Matter (TSP)	3,899	1,671
Sulfur Dioxide (SO ₂)	66,243	10,821
Volatile Organic Compounds (VOC)	148	96

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2017 Actual Emissions
Hydrochloric Acid (HCl)	59	6.3
Hydrogen Fluoride (HF)	20	7.4
Formaldehyde	15.1	0.38

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit 66,243 tons per year of SO₂, 13,096 tons per year of NO_x, 1,909 tons per year of PM₁₀, 1,308 tons per year of CO, 148 tons per year of VOC, and 94 tons per year of HAPS. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Allegheny Energy Supply Company, LLC's Pleasants Power Station is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:

45CSR2	To Prevent And Control Particulate Air Pollution From Combustion Of Fuel In Indirect Heat Exchangers
45CSR6	Control Of Air Pollution From Combustion Of Refuse
45CSR10	Control of Sulfur Dioxide Emissions from Indirect Heat Exchangers.
45CSR11	Prevention Of Air Pollution Emergency Episodes
45CSR13	Permits For Construction, Modification, Relocation And Operation Of Stationary Sources Of Air Pollutants, Notification Requirements, Administrative Updates,

45CSR16	Temporary Permits, General Permits, And Procedures For Evaluation
45CSR30	Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60
45CSR33	Requirements For Operating Permits
45CSR34	Acid Rain Provisions And Permits
40 C.F.R 60, Subpart D	Emission Standards For Hazardous Air Pollutants
40 C.F.R 60, Subpart Y	Standards of performance for Fossil Fuel Fired Steam Generators
40 CFR 60, Subpart IIII	Standards of Performance for Coal Preparation Plants
40 CFR Part 61, Subpart M	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 CFR Part 64	National Emission Standard For Asbestos
40 CFR Part 63 Subpart DDDDD	Compliance Assurance Monitoring
40 CFR Part 63 Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
40 CFR 63, Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units
40 CFR Part 72	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR Part 73	Permits Regulation
40 CFR Part 74	Sulfur Dioxide Allowance System
40 CFR Part 75	Sulfur Dioxide Opt-ins
40 CFR Part 76	Continuous Emissions Monitoring
40 CFR Part 77	Acid Rain Nitrogen Oxides Emission Reduction Program
40 CFR Part 78	Excess Emissions
40 CFR Part 82, Subpart F	Appeals Procedure (for Acid Rain Program)
40 C.F.R. Part 97, Subpart AAAAA	Ozone depleting substances
40 C.F.R. Part 97, Subpart EEEEE	TR NO _x Annual Trading Program
40 C.F.R. Part 97, Subpart CCCCC	TR NO _x Ozone Season Trading Program
WV Code § 22-5-4 (a) (14)	TR SO ₂ Group 1 Trading Program
	The Secretary can request any pertinent information such as annual emission inventory reporting.

State Only:

45CSR4	To Prevent And Control The Discharge Of Air Pollutants Into The Open Air Which Causes Or Contributes To An Objectionable Odor Or Odors
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Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 CFR Part 60 (NSPS), 40 CFR Part 61 (NESHAPs), and 40 CFR Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (if any)
R13-0071	May 17, 1974	
R13-0335	September 26, 1977	
R13-1559	February 18, 1993	
R13-2319A	November 8, 2007	
R13-3082B	June 10, 2016	
CO-SIP-C-2008-6 (Operation of SCRs) Letter from David Cannon to John Benedict (Clarification of SCR Operation under Consent Order)	April 9, 2008 (Order) December 22, 2008 (Letter)	
R33-6004-2022-5 (Acid Rain Permit)	December 19, 2017	Effective January 1, 2018

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

- ❖ This is a renewal of the Title V permit which was issued on October 17, 2013 and modified on August 23, 2016 and August 27, 2018. Substantial changes to the most recent version of the Title V Permit consist of the following:
 - 1) **Title V Boilerplate changes**
 - **Conditions 3.5.3., 3.5.5. and 3.5.6.** - These conditions were revised to require electronic submittal of the Title V compliance certifications (annual and semi-annual), self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols to the WV DAQ.
 - 2) **Condition 3.1.9.** - This condition contained the requirements of 45CSR39 (CAIR NO_x Annual Trading Program). Since CAIR has been replaced with the Cross-State Air Pollution Rule (CSAPR) trading program, the CAIR requirements have been removed from the permit. This condition now contains requirements for the “Cross-State Air Pollution Rule (CSAPR) Trading Program” of 40 CFR §97.406. The requirements of CSAPR have been added in Appendix A of the permit.
 - 3) **Condition 3.1.10.** - This condition contained requirements of 45CSR40 (CAIR NO_x Ozone Season Trading Program). Since CAIR has been replaced with the Cross-State Air Pollution Rule (CSAPR) trading program, the CAIR requirements have been removed from the permit. This condition now

contains requirements for the “Cross-State Air Pollution Rule (CSAPR) Trading Program” of 40 CFR §97.806. The requirements of the Transport Rule have been added in Appendix A of the permit.

- 4) **Condition 3.1.11.** - This condition contained requirements of 45CSR41 (CAIR SO₂ Trading Program). Since CAIR has been replaced with the Cross-State Air Pollution Rule (CSAPR) trading program, the CAIR requirements have been removed from the permit. This condition now contains requirements for the “Cross-State Air Pollution Rule (CSAPR) Trading Program” of 40 CFR §97.606. The requirements of the Transport Rule have been added in Appendix A of the permit.

5) **Section 4.0.**

- The requirements of 40 CFR 63 Subpart UUUUU (MATS) have been added in Section 4 of the permit in conditions 4.1.2.b., 4.1.20. through 4.1.38., 4.2.9. through 4.2.20., 4.3.3. through 4.3.16., 4.4.8. through 4.4.17., and 4.5.7. through 4.5.17. See discussion below.
 - The requirements of 40 CFR 63 Subpart DDDDD (Boiler MACT) have been added in Section 4 of the permit in conditions 4.1.39. 4.4.18., 4.4.19., 4.5.18. and 4.5.19. See discussion below.
 - Condition 4.1.12.a. – “(Acid Rain Permit is included in Appendix D)” has been added to this condition and the Acid Rain Permit has been added in Appendix D.
 - Condition 4.1.20. – The MATS placeholder language in this condition has been replaced with MATS requirements.
 - Condition 4.1.21. (current permit) – The Boiler MACT “place holder” language in this condition has been replaced with Boiler MACT requirements. (renewal permit condition 4.1.39).
 - Condition 4.3.1. – Updated to include the most recent test results and testing schedule.
- 6) **APPENDIX A** – The CAIR requirements have been replaced with the Cross-State Air Pollution Rule Requirements.
- 7) **APPENDIX B** – The contact information for the Rule 2 Monitoring Plan has been updated at the request of Allegheny Energy Supply Company through comments submitted on the Pre-Draft/Proposed Permit. Language pertaining to this change has been added to the first page of the plan. The 45CSR2 Monitoring Plan has not been revised and therefore no other changes were made to the plan.
- 8) **APPENDIX D** – This appendix which contains the Acid Rain Permit, has been added to the renewal permit.

❖ **40 C.F.R. 63 Subpart DDDDD – *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.***

- The Pleasants Power Station is a major source of HAP because it has potential emissions in excess of 25 tpy for total HAP and/or potential emissions in excess of 10 tpy for any individual HAP. Therefore, 40 CFR Part 63, Subpart DDDDD potentially applies to Unit 1 and Unit 2 steam generators and the two auxiliary boilers. The Unit 1 and Unit 2 steam generators are not subject to the Boiler MACT regulation per 40 CFR §63.7491(a) because they are electric utility steam generating units (EGUs) covered by 40 CFR 63 Subpart UUUUU (see discussion below). The non-EGU auxiliary boilers are considered existing affected units under Subpart DDDDD because construction commenced on the units prior to June 4, 2010 and they have never been reconstructed. It should be noted that the Pleasants Power Station has submitted a timely initial notification to WVDEP in accordance with 40

C.F.R §§63.7545(b) and 63.9(b) indicating that the auxiliary boilers are subject to 40 C.F.R. 63 Subpart DDDDD.

Each auxiliary boiler is a natural gas-fired non-EGU boiler. The boilers also have the ability to burn liquid fuel for the purposes defined in 40 CFR §65.7575. The boilers are used for heating, startup, and shutdown purposes when the main units are out of service. The nominal design heat input of each boiler is 222 mmBtu/hr. Since the boilers are natural gas-fired boilers with design heat inputs greater than 10 mmBtu/hr, they are required to perform annual tune-ups and a one-time energy assessment.

Since the auxiliary boilers are existing, the compliance date is January 31, 2016, according to §63.7495(b). The requirements to comply with the applicable requirements of Subpart DDDDD by January 31, 2016 (40 CFR §63.7495(b)), to complete an initial tune-up of Aux Blr PA and Aux Blr PB by January 31, 2016 (40 CFR §63.7510(e)), to submit the “Notification of Compliance Status” containing results of the initial compliance demonstration (i.e., 40 CFR§63.7530(f)), and to have a one-time energy assessment performed (i.e., 40 CFR§63.7510(e)) have been satisfied and therefore not included in this renewal.

❖ **40 CFR 63 Subpart UUUUU – National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units**

- This regulation, also known as the “Utility Mercury and Air Toxics (MATS)” rule, applies to coal- and oil-fired EGUs as defined in §63.10042 of 40 CFR Part 63. The Utility MATS rule establishes national emission limitations and work practice standards for mercury, acid gases, and filterable particulate matter, as well as requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards. Existing affected sources must comply with the requirements of Subpart UUUUU no later than April 16, 2015 (cf. §63.9984(b)) A one-year extension was requested and granted. Therefore, the compliance date for the Pleasants Station was April 16, 2016. However, in accordance with §64.9984(f), compliance demonstration by conducting the required performance tests and other activities must be completed no later than 180 days after said compliance date. The Pleasants Power Station has met the initial compliance requirements.

The coal-fired Unit 1 and Unit 2 steam generators are existing EGUs as defined in §63.9982(d), and do not meet any of the exemption criteria in §63.9983. Both steam generators primarily combust coal with a heating value greater than 8,300 Btu/lb. The units are also capable of combusting fuel oil as a secondary fuel for startup, shutdown, and for flame stabilization. Both units meet the criterion of §63.9990(a)(1) for units combusting coal with a heating value greater than 8,300 Btu/lb, and as such do not combust low rank virgin coal.

- **Compliance Approach** - The permittee has conducted the initial compliance demonstration and submitted the results of the performance testing to DAQ. The test results are briefly discussed below for each pollutant. Additionally, the required NOCS has been submitted. The facility has elected to demonstrate compliance by emissions averaging for HCL and PM (quarterly stack tests), and CEMS for Hg (30-day rolling average).

- *Filterable Particulate Matter (PM)*
The permittee has elected to comply with the 0.30 lb/MWh filterable particulate matter (PM) limitation (rather than Total non-Hg HAP metals, or Individual HAP metals). The initial performance testing was concluded for Units 1 and 2 on July 15, 2016 resulting in 0.104 lb/MWh. Continuous compliance will be demonstrated through quarterly performance testing and utilizing the emissions averaging procedures in 40 CFR §63.10009.
- *Hydrogen Chloride (HCL)*

The permittee has elected to comply with the 0.02 lb/MWh Hydrogen Chloride (HCL) limitation. The initial performance testing was concluded for Units 1 and 2 on July 15, 2016 resulting in 0.005 lb/MWh. Continuous compliance will be demonstrated through quarterly performance testing and utilizing the emissions averaging procedures in 40 CFR §63.10009.

- *Mercury (Hg)*

The permittee has elected to comply with the 0.013 lb/GWh mercury (Hg) limitation utilizing an Hg CEMS. The initial compliance was concluded on June 20, 2016 resulting in 0.006 lb/GWh. Continuous compliance will be demonstrated using the Hg CEMS and utilizing the emissions averaging procedures in 40 CFR §63.10009.

- *Work Practice Standard for Tune-up of Burner & Combustion Controls*

The permittee will conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months as specified in 40 CFR §63.10021(e).

- *Work Practice Standard for Startup & Shutdown*

The permittee will operate all continuous monitoring systems for the units during periods of *startup* and *shutdown* as those terms are defined in 40 CFR §63.10042. (*The Pleasants Power Station plans to utilize paragraph (1) of the start-up definition in §63.10042 for both units*). During startup of a unit, clean fuel (defined in §63.10042) must be used for ignition. Once coal is fired, all of the applicable control technologies must be engaged. During shutdown of a unit, the permittee must operate all applicable control technologies while firing coal. The permittee must comply with all applicable emissions limits at all times except for periods that meet the definitions of startup and shutdown. All applicable requirements in Items #3 and #4 of Table 3 to Subpart UUUUU will be adhered to.

➤ The applicable requirements for an EGU utilizing PM and HCL quarterly performance testing and Hg CEMS have been included in Section 4 of the permit. The initial compliance demonstration has been completed and the NOCS has been submitted therefore the initial compliance requirements are not included in the permit. The permittee has indicated the use of emission averaging; therefore, the emission averaging requirements have been incorporated into the permit.

- The permittee has not indicated the desire to qualify for LEE status and therefore the LEE requirements have not been included in the permit
- A PM continuous parametric monitoring system (CPMS) is not being utilized, therefore the PM CPMS requirements have not been included in the permit.
- The permittee has elected to comply with the PM limit as opposed to total non-Hg HAP metals or Individual HAP metals, therefore requirements pertaining to non-Hg HAP metals or Individual HAP metals are not included in the permit.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

- | | |
|------------|--|
| 45CSR10 | Pleasants Power Station does not have an SO ₂ weight emission standard under State Rule 10. |
| 45CSR§10-8 | The auxiliary boilers for the Pleasants Station burn natural gas and/or distillate oil and are exempt pursuant to 45CSR§10-10.3. |

45CSR5	Pursuant to 45CSR5, if 45CSR2 is applicable to the facility, then the facility is exempt from 45CSR5. 45CSR2 is applicable to the facility.
45CSR17	Pursuant to 45CSR17, if 45CSR2 is applicable to the facility, then the facility is exempt from 45CSR17. 45CSR2 is applicable to the facility.
40 CFR Part 60 Subpart Da	Pleasants Unit 1 and Unit 2 Boilers commenced construction prior to September 18, 1978.
40 CFR Part 60 Subpart Db	Pleasants Auxiliary Boilers were constructed prior to June 19, 1984.
40 CFR Part 60 Subpart K	Pleasants station does not have any tanks storing petroleum liquids (as defined in 40 CFR §60.111) that were constructed after March 8, 1974 and prior to May 19, 1978 and exceed 40,000 gallons in capacity.
40 CFR Part 60 Subpart Ka	Pleasants station does not have any tanks storing petroleum liquids (as defined in 40 CFR §60.111a) that were constructed after May 18, 1978 and exceed 40,000 gallons in capacity.
40 CFR Part 60 Subpart Kb	Pleasants station does not have any tanks that were constructed after July 23, 1984 that (a) exceed 75m ³ (19,813 gal) in capacity and store volatile organic liquids (as defined in 40 CFR §60.111b) with a maximum true vapor pressure greater than 15.0 kPa (2.18 psia) or (b) exceed 151m ³ (39,864 gal) in capacity and store a volatile organic liquids with a maximum true vapor pressure greater than 3.5 kPa (0.51 psia)
40 C.F.R Part 60, Subpart OOO	Limestone equipment was in operation prior to August 31, 1983.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: February 20, 2019
Ending Date: March 22, 2019

Point of Contact

All written comments should be addressed to the following individual and office:

Frederick Tipane
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1215 • Fax: 304/926-0478
frederick.tipane@wv.gov

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

- During the “Draft/Proposed” period, the address for US EPA reporting changed. Therefore, the address for US EPA in condition 3.5.3. has been updated with the new address.
- During the Draft Period, Comments were received from Mr. James A. Lefik of First Energy Corporation. The following are the Comments and responses. Comment 2 has resulted in a revision to the draft permit as outlined in the response.

Comment 1:

On Page 45, Condition 4.3.1 requires that the current testing required for demonstrating compliance with the particulate matter mass emissions “shall be conducted in accordance with the appropriate method set forth in 45CSR2 Appendix – Compliance Test Procedures for 45CSR2 or other equivalent EPA approved method approved by the Secretary.” [emphasis added]. FirstEnergy requests that the quarterly stack testing for filterable particulate matter, which is more stringent and what the Pleasants facility utilizes to demonstrate compliance with the federal Mercury and Air Toxics Standards, replace this redundant stack testing requirement.

Response 1:

Because the Rule 2 (i.e., 45CSR2) Test method is slightly different and more stringent (due to lower filter temperature requirement and longer sample run times) than the 40 CFR 63 Subpart UUUUU, the Rule 2 testing requirements will remain in the permit.

Comment 2:

Pursuant to the Mercury and Air Toxics Standards, 40 CFR Part 63, Subpart UUUUU, Section 63.10009(j), the site-specific averaging plan for particulate matter, hydrochloric acid, and mercury was submitted to the Department on December 17, 2015. This plan detailed the methodology Pleasants uses to demonstrate compliance with each applicable emission limitation of the MATS rule. Ongoing compliance is demonstrated and certified through the semi-annual compliance reports submitted to the Department. Similar to the 45 CSR 2 Monitoring Plan contained in Appendix B, FirstEnergy is requesting that the approved monitoring plan be included in its entirety as an additional appendix, with the appropriate reference to each applicable plan section added in lieu of the excessive and burdensome language currently proposed in the draft permit Conditions 4.1.26, 4.1.27, 4.1.28, 4.1.32, 4.1.33, and 4.1.36, Pages 31-36. (A copy of the monitoring plan is included for reference).

Response 2:

Conditions 4.1.26., 4.1.27., 4.1.28., 4.1.32. and, 4.1.33. contain requirements for the procedures and use of an averaging plan and therefore will remain in the permit. Condition 4.1.36. is a requirement pertaining to the development of an averaging plan. The introductory language in this condition has been retained with the addition of “(See Appendix E for the Averaging Plan).” The rest of the condition (i.e., 4.1.36.a. and 4.1.36.b.) has been deleted. The averaging plan has been added in Appendix E.

Comment 3:

In lieu of excessive and burdensome language, FirstEnergy requests that Appendix A, Cross-State Air Pollution Rule Requirements, be replaced with a single more streamlined statement, e.g., “The Pleasants is an affected facility pursuant to 40 CFR Part 97, the Cross-State Air Pollution Rule (CSAPR), which the Department has adopted by reference. As such, the permittee shall comply with the applicable requirements of 40 CFR Part 97, including the NOx Annual Trading Program,

NO_x Ozone Season Group 2 Trading Program Requirements, and the SO₂ Group 1 Trading Program Requirements.” Since all provisions of federal rules are often not applicable to a facility in their entirety, including them in the permit can lead to confusion as to the specific compliance requirements of a given source. Similar statements have been included in other affected FirstEnergy Title V operating permits in EPA Region III in lieu of the all-inclusive “cut and pasted” federal regulations.

Response 3:

Incorporating by reference (IBR) the requirements from the *Cross-State Air Pollution Rule* (CSAPR) is not a viable option given the fact that the USEPA has previously commented on the use of IBR (with some exceptions) on other permits where IBR was utilized. The requirements in Appendix A for CASPR are primarily those requested by the USEPA to be included in the Title V permits. Therefore, Appendix A and the CASPR requirements will remain in the permit.